four times; 53% of all PW who attended ANC were delivered in the HFs (48.8% public and 51.2% private).

Conclusion: Although majority of the PW had attended ANC at least four times, uptake of the two doses of IPTp remains low; this was much worse in the private HFs. Targeted capacity building for ANC providers and HFs in the private sector may reduce missed opportunities for prevention of malaria among women attending ANC in the state. Further exploration of kind of care received by those who attended ANC but did not deliver in the HF is recommended.

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Prospective cohort study on rectal colonization with Carbapenem Resistant Enterobactericeae in patients admitted in a tertiary care hospital

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Background: The data on prevalence of Carbapenem Resistant Enterobactericeae (CRE) colonisation in south India is lacking. This study was carried out to assess the prevalence of rectal colonisation of CRE, to compare CRE prevalence in patients admitted from the community with those with prior healthcare exposure and association between CRE colonization and true CRE infection.

Methods & Materials: 138 consecutive patients admitted to multi disciplinary ICU from May 2015 were included after appropriate exclusions. Rectal swab was collected within 24 hours of admission by trained nurses. Data was collected in a structured proforma, samples were processed according to CDC guidelines. Patients were followed up till discharge. Based on the published data, sample strength of 114 was calculated for adequately powering the study at 95% CI and 20% desired precision. Fischer's Exact Test was used for analysing the statistical significance.

Results: 138 patients were included in the study and 9 (6.5%) were found to have rectal colonisation with CRE. K. pneumoniae was isolated in 7 cases and E.coli in 2. Mean age was 51.78 years. 63% were males. 63% had comorbidities, diabetes mellitus being most common (n = 72). 61% had previous hospitalisation within last 3 months. Previous antibiotic use, especially carbapenem use, was significantly associated with CRE colonisation (p = 0.004, OR-7.59,LL-0.93,UL-61.63 after correction and p = 0.026,OR-8.71,LL-1.79,UL-42.3 respectively). Out of 138, 20 patients grew CRE from sites other than rectum, of which 6 had true infection, while 14 were colonised. Rectal colonisation with CRE was found significantly associated with isolating CRE from other samples (p = 0.019, OR-5.65,LL-1.37,UL 23.27) though not with true infection [p = 0.662,OR-2.27,LL-0.24,UL-21.02(after correction)]. A logistic regression was performed to ascertain the effects of variables on the likelihood that participants have CRE colonisation and was statistically significant, $\chi^2 = 27.27$, $p = 0.039$. The model explained 46.9% (Nagelkerke R^2) of the variance in CRE colonisation and correctly classified 94.9% of cases.

Conclusion: The prevalence of CRE rectal colonisation is low compared to previous studies. Understanding the risk factors like previous hospitalisation, carbapenem use and the risk of multiple site colonisation will help focusing infection control measures in these patients to prevent transmission.

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Evaluation of antimicrobial and disinfectant resistant bacteria isolated from the environment of a University Health Centre

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Background: The hospital environment continues to be a source of healthcare associated infections despite hospital infection control strategies. In addition there is an increased prevalence of antimicrobial and disinfectant resistant bacteria. This study was carried out to detect the presence of antimicrobial and disinfectant resistant pathogenic bacteria after the disinfection of the floors and surfaces in a University health centre in Nigeria.

Methods & Materials: Environmental samples were obtained from different areas within the health centre such as the wards, theatre, treatment room, laboratory and the waiting area. Samples were taken from floors, door handles, patient beds, floors, table tops using moist sterile swabs. Samples were inoculated on appropriate culture media and isolates were identified using standard bacteriological methods. Antimicrobial susceptibility and disinfectant susceptibility tests were carried out using the disk diffusion and agar dilution techniques.

Results: The isolated organisms include *Staphylococcus aureus*, coagulase negative staphylococci, *Klebsiella* spp, *Bacillus* spp, *Escherichia coli, Proteus* spp and *Streptococcus* spp. Antimicrobial resistance was observed against penicillin, trimethoprim-sulphamethoxazole, tetracycline, gentamicin and cefoxitin. Multidrug resistance was observed in *S. aureus.* Susceptibility to disinfectants varied with concentrations but there were resistance to certain disinfectants at the recommended dilutions.

Conclusion: This study has shown that antibiotic resistant and disinfectant resistant organisms may persist in the environment after disinfection. Continual monitoring of the hospital environment is necessary to prevent infections caused by resistant pathogens.

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